REMARKS

Claims 3, 9, 10, and 18 are pending in the present application. Claims 1, 2, 4-8, and 11-17 have been canceled. Claims 3, 9, and 10 have been amended. Claims 3, 9, 10, and 18 are independent claims. The Examiner is respectfully requested to reconsider the outstanding rejections in view of the above amendments and the following remarks.

Claim Objections

The Examiner objected to claims 3, 9, and 10 because there is insufficient antecedent basis for "first electrodes" and "second electrodes." These claims have been rewritten in independent form, and further amended to replace the aforementioned elements with --cathode electrodes-- and --gate electrodes--, respectively. It is respectfully submitted that there is sufficient antecedent basis for the elements in the aforementioned claims. Thus, the Examiner is respectfully requested to withdraw this objection.

Allowable Subject Matter

It is gratefully acknowledged that the Examiner has allowed claim 18 and considers the subject matter of claims 3 and 10 as being allowable if rewritten in independent form. Although not conceding the appropriateness of the Examiner's rejections, claims 3 and 10 have been rewritten in independent form and are now in condition for allowance.

Rejection Under 35 U.S.C. § 103

Claim 9 stands rejected under 35 U.S.C. § 103(a) as being unpatentable over U.S. Patent No. 5,955,850 to Yamaguchi et al. (hereafter "Yamaguchi") in view of U.S. Patent No. 7,012,362 to Kawate et al. (hereafter "Kawate"). This rejection is respectfully traversed.

MPEP § 2143.03 sets forth the following requirements for a proper rejection under 35 U.S.C. § 103:

> "To establish *prima facie* obviousness of a claimed invention, all the claim limitations must be taught or suggested by the prior art. *In re Royka*, 490 F.2d 981, 180 USPQ 580 (CCPA 1974)."

Claim 9 recites, "a lowermost insulating layer of said plurality of insulating layers being in contact with said plurality of cathode electrodes has a thickness t1, and the remainder of said plurality of insulating layers other than said lowermost insulating layer has a thickness t2, where t1 is smaller than t2." Applicants respectfully submit that Yamaguchi and Kawate, taken separately or in combination, fail to teach or suggest this feature.

In the rejection, the Examiner acknowledges that "Yamaguchi *et al.* fail[s] to disclose a t1 that is smaller than t2" (Office Action at page 6, 1st paragraph). The Examiner merely points out that Yamaguchi teaches designing an electric field by adjusting various parameters (*id.*) Further, the Examiner does not point out any teaching in Kawate regarding the aforementioned claim feature. Thus, the Examiner failed to point out a teaching or suggestion of every claim limitation as required.

However, the Examiner argues that the aforementioned claim feature is obvious, asserting the following:

> "It would have been obvious to a person of ordinary skill in the art at the time the invention was made to configure the thickness of the lowermost insulating layer such that it is smaller than the thickness of the remainder of the plurality of insulating layers, since a person would be motivated to design a desired electric field by adjusting various parameters" (Office Action at page 6, 2nd paragraph).

From this statement the Examiner apparently considers the thickness setting of claim 9 to be merely an "obvious design choice." Applicants respectfully disagree with such a characterization. The thickness setting produces a specific effect, which is described in the specification at page 10, lines 18-22:

> "the insulating layer 104B located adjacent to the gate electrodes 102 is set to have a greater thickness than the insulating layer 104A located adjacent to the cathode electrodes 101 so as to perform the function of ensuring insulation between the gate electrodes 102 and the cathode electrodes 101 and a nanofiber-structure layer 105 serving as electrode sources."

Accordingly, the thickness setting of claim 9 is not a mere design choice. Instead, it performs a useful function that is neither taught nor suggested by Yamaguchi and Kawate, taken separately or in combination.

At least for the reasons set forth above, Applicants respectfully submit that claim 9 is in condition for allowance. Therefore, the Examiner is respectfully requested to reconsider and withdraw this rejection.

Conclusion

In view of the above remarks, it is believed that the claims clearly distinguish over the patents relied on by the Examiner, either alone or in combination.

Should the Examiner believe that any outstanding matters remain in the present application, the Examiner is respectfully requested to contact Jason W. Rhodes (Reg. No. 47,305) at the telephone number of the undersigned to discuss the present application in an effort to expedite prosecution.

If necessary, the Commissioner is hereby authorized in this, concurrent, and future replies to charge payment or credit any overpayment to Deposit Account No. 02-2448 for any additional fees required under 37 C.F.R. §§ 1.16 or 1.17; particularly, extension of time fees.

Dated: September 28, 2007

Respectfully submitted,

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